

BETWEEN THE BRANCHES

ISSUE 57 OCTOBER 2022

**MOSSFELDT
PIONEERS 534**
in SWEDEN

NEW BRUNSWICK
STOREY

BATTLE *in the*
LOWLANDS

**MODERNIZED
SILVICULTURE**
in MEXICO

SWING BOOM

Tigercat[®]

BETWEEN THE BRANCHES

ISSUE 57 OCTOBER 2022

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FROM THE *Editor*

Many of you will have pulled the Tigercat 2023 collector's calendar that accompanied this issue out of the envelope and will soon be tacking it to your office wall. As another tough year draws to a close, we've scored some big wins – a modern take on a swing yarder, a purpose-built forestry dozer, and the 6900 grinder just to name a few. You will find all of them in your new calendar.

This issue has three stories about very unique machines based on Tigercat's H-series skidder platform. All three were developed to address a need and to do a specific job better. No one else really builds niche application forestry machines like Tigercat. Just considering the skidder product line, there are ten skidder models, plus the utility carrier variations. Over the years, the utility carriers have done everything from elevating hydro workers with an aerial device, to broadcasting fertilizer (and manure), to scarifying and pulling plows to prep harvested blocks for replanting.

We've got a couple of end user profiles – two cut-to-length contractors working in very different forest environments. Both are using Tigercat systems to get the job done. Tigercat is far from the biggest player in the CTL world. However, Tigercat CTL systems are proving their worth and working efficiently in a very wide range of applications around the globe. Scrappy mixed stands in eastern

Canada, intensively managed forests of Scandinavia, deciduous woodlands in Michigan, and orderly southern hemisphere eucalyptus plantations are all homes to Tigercat CTL systems.

A third profile focuses on a BC-based company. The third generation owners decided they would not be bound by geography. They have since successfully transplanted their knowledge and expertise to an entirely new region. A great example of innovative thinking.

– Paul Iarocci

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DEALER DEVELOPMENT

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INTRODUCING *the* TIGERCAT 6900 GRINDER

Tigercat officially introduces the 6900 grinder, the first regular production offering in Tigercat's material processing category.

The 6900 is the first production grinder designed and built by Tigercat. The 6900 is a heavy-duty upswing grinder made for high throughput material reduction and mulch production.

With Tigercat's legendary build quality, the 6900 is designed for extreme duty and long life, utilizing only the highest quality components. The upswing rotor and large infeed opening with outward wing walls maximize processing capacity.

The grinder's upper frame pivots on the undercarriage, allowing the

operator to adjust the infeed angle or discharge height for different material lengths. The adjustable angle eliminates the need for outriggers. The pivoting upper frame allows transport on a 46 cm (18 in) lowboy trailer without the need to fold the discharge conveyor.

The machine has remote control functions for simple operation and mobility on site, along with an easy-to-use 25 cm (10 in) touchscreen for machine monitoring and function adjustment.

Maintenance is made easy with convenient service access. The split

hog box opens over centre to fully access the rotor and screens. The anvil and screens are hydraulically retractable. The single discharge conveyor is open on the bottom for clean operation and easy servicing. A tool storage area mounted on the side of the machine hydraulically raises and lowers for added convenience.

An optional large diameter magnetic head pulley is available to effectively remove ferrous metals from the end product. The machine is also prepared to accept over-band magnet systems. ■

NEXT GENERATION HARVESTING HEAD CONTROL

The Tigercat D7 control system combines a solid and field proven hardware and bucking control system with a Tigercat developed head control and user interface. The system offers powerful functionality, simplicity and intuitive operator navigation.

There are two types of bucking control available for D7. Priority-based bucking logic utilizes a list of operator-entered log specifications sizes to determine how best to process the tree. D7 Optimization level uses a value-based logic. Using multiple layers of matrices correlating price, demand, and production limits to each log size under each tree species, the control system optimizes each processed tree to achieve the best value. These matrices are usually programmed by the timber buyer.

Reporting

Both Tigercat D7 Priority and Optimization levels offer StanForD Classic, StanForD 2010, and PDF production reporting based on contracts, operators, species, and product groups. The reports provide total quantity and volume, as well as per species and product group quantities and volume. Reports can be viewed onscreen, or exported for later analysis. D7 also sends production volume data to RemoteLog®, Tigercat's optional telematics system.

GPS integration

D7 can be equipped with a GPS receiver and the GeoInfo software. This provides an active navigation application using the machine's current position on a georeferenced map. Worksite maps can be viewed on the in-cab display screen, allowing the operator to easily view the site layout, track the movement of the machine, and view production information. Restricted areas can be marked with boundary alarms. ■

D7

D7 is currently available for the Tigercat 534 harvesting head.





570 FIXED HARVESTING HEAD

The Tigercat 570 harvesting head is now available with a fixed wrist for applications where positive control for felling and processing is required.

The 570 fixed head design combines two proven technologies – the Tigercat 570 harvesting head and the Tigercat 340 degree wrist.

The 570 is a durable, high performance, two-wheel drive, three knife arm harvesting head. The 340 degree wrist is field-proven in felling applications where maximum dexterity and positive control are needed. A wrist float feature is standard for the 570, allowing the head to align more

easily to the tree for felling and feeding. The wrist float function is fully adjustable to suit operator preference.

Strong components, large bushings and pins, and durable Tigercat construction throughout result in less downtime and higher production. Hydraulic hoses are well routed with robust guarding.

The 570 comes standard with 1000 cc feed motors and wide-track feed wheels. A top saw is standard for the fixed configuration. The full

range of Tigercat D5 control system levels is available.

The 570 fixed head has proven effective in select-cut harvesting applications, particularly for high-value hardwood, where positive control is required to reduce damage to the felled trees or standing timber. It is best matched to Tigercat 822 series carriers. ■



TIGERCAT GRAPPLE LINE EXPANDS

Tigercat continues to expand its line of grapple attachments for Tigercat loaders, loggers and shovel loggers.

The new Tigercat BG13 is a large capacity bunching grapple suited to high production shovel logging operations.

The BG13 structural design is based on Tigercat's field-proven dual cylinder skidder grapples, with a strong grapple box and robust

cylinders. The rotate motor and manifold are common with the well-proven Tigercat LG4053 and LG5057 loader grapples. Hydraulic hoses are routed on top of the boom and under the connecting pin, protecting the hoses from damage.

The large 1,2 m² (13 ft²) capacity

maximizes load size per cycle.

The wide tip-to-tip grapple tong opening allows scattered bunches to be quickly and easily gathered, reducing cycle times. The grapple can be equipped with a choice of plate or boxed tongs. The BG13 is best matched to LSX870D and LS855E shovel loggers. ■



HARVESTER SUPPORT



Gordon Kyler

Tigercat welcomes Gordon Kyler to the product support team.

Based in Sundre, Alberta, Gordon Kyler has taken on a Tigercat product support role. Gordon will focus on providing technical assistance related to harvesters and harvesting heads throughout the North American dealer network.

Gordon joins our team with a proven technical background as a heavy-duty equipment technician and former president/owner of a local Alberta business. He has spent over 33 years working on many heavy equipment brands in the forestry sector. “I had worked with Gord in his previous job and what impressed me the most was the respect his customers had for him and his work. I am looking forward to getting to work with him in supporting our current and future customers,” says Blain MacDonald, product support, harvesting heads.

District manager James Farquhar comments, “Gordon has previously worked directly for Tigercat as a contract mechanic in Alberta. He is a great addition to the Tigercat family and brings a lifetime of forestry equipment knowledge with him.”

“It will be a pleasure to work with a group of individuals that have the same values and professionalism that I have in regards to the product and the customers,” says Gordon. “I plan to take my years of knowledge and experience to a new level, engaging with customers to help solve their problems and build their confidence. I am looking forward to the challenge. ■



TORGERSON'S *Takes Montana*

Early in 2022, Tigercat dealer Titan Machinery sold its Montana branches to Torgerson's LLC, a Case IH and New Holland dealer in Montana. One of the affected branches in Missoula is an active Tigercat dealer location with full parts supply and service capability for Tigercat machinery.

Torgerson's is a privately owned family dealership that has been in business for 110 years. In regard to the Missoula location, fourth generation CEO, Brion Torgerson comments, "Torgerson's has kept the forestry sales team, and the parts and service support teams intact.

We will maintain continuity of service in all aftermarket functions to the customer base. Torgerson's has committed to the forestry industry and the Tigercat brand by expanding parts and service. We have substantially increased our on-hand Tigercat parts inventory to support our area's fast-growing customer base."

"We have hired additional experienced service technicians and added field service vehicles to assist us in fast and efficient responses to our customers' needs," Brion continues. "Tigercat factory training is ongoing and a very important

part of supplying top-rate service and support. Tigercat is a core part of our business, and we look forward to growing with Tigercat and our Tigercat customers."

According to Tigercat district manager James Farquhar, "I have been very excited to work with the Torgerson's group. The family business has a long, successful history. Brion and his team have been very proactive in entering the forestry market. The Tigercat family and I look forward to helping Torgerson's support existing and new Tigercat customers." ■

TORGERSON'S 100



LEADERSHIP CHANGE AT TIGERCAT

Tigercat founder Ken MacDonald takes on the role of president, Tigercat Industries.



Grant Somerville, director.



Ken MacDonald, president.

On August 2, 2022, Grant Somerville stepped away from his role as president of Tigercat Industries. The timing was related to Grant's original intention to serve as president for a five-year term when he took on the role in 2017. Tigercat founder, Ken MacDonald has assumed the role of president.

"I wish to thank Grant for all of the contributions that he has made to our company during his entire

30 years with us," says Ken. "I want to particularly recognize the leadership he provided during his presidency. He very capably steered us through and oversaw record production and sales volumes in 2019. He then went on to lead our team through the incredibly trying last two and a half years during which we dealt with the COVID pandemic as well as the effects on our business related to the war in Ukraine. Despite these challenges, he took everything in stride and

saw to it that we still managed to complete two major plant expansions and launch several new product lines."

Grant will continue to serve the company as a director. In his new role, he will offer advice, and support various engineering initiatives focused on the development of new products and the improvement of existing products. ■

S U C C E E D I N G



IN *DIFFICULT* TIMES

Skidder product manager Jeremy Piercy recalls the challenges that the design and production teams overcame during the H-series skidder product launch.

The H-series skidder design project was well advanced when the pandemic hit in the first quarter of 2020. The unfortunate timing of the launch was planned for mid-2020. It could have easily derailed. Instead, the whole team dug their heels in and rose to battle every challenge. This was no easy task. Travel was not permitted, manufacturers were shut down, supply chains were crippled. But we played to our strengths and adapted.

When the production teams returned from mandated shutdowns, they had to scramble to

put together all the puzzle pieces of a new puzzle that many had never seen before. They fought through and overcame many significant challenges and laid the foundation for a successful launch.

When we could not travel to promote the new machines and perform field observations, we turned to technology to hold virtual walk-arounds for our dealers and end users. We also created an H-series walk-around video that has been viewed over 115,000 times.

Instead of witnessing firsthand the early machines going to work in the woods, we passively watched in our offices as the comments, videos and pictures poured onto and circulated in social media. Our field representatives throughout the world did the heavy lifting, competently handling field visits where factory-based designers could not, and setting up the launch for success. The importance of having a great team in the field became very apparent.

Fast forward to fourth quarter 2022. We have continued to add new models to the skidder platform line-up like the 635H swing boom, C640H clambunk, and the 630H utility carrier that is working post-harvest to prepare sites for replanting. We also hit a major milestone in shipments of H-series skidders. Getting here was not easy but nothing worth doing is.

We have many reasons to feel optimistic about the future. We have finally started travelling to the field again, reconnecting with many customers who believe in Tigercat. We have spoken with contractors who have never owned a Tigercat skidder and yet are impressed with what the H-series has to offer. While there will still be challenges ahead, by adapting we continue to become smarter, stronger and more resilient. ■

Above: Members of the H-series design and production teams gathered for a photo.

A man wearing a yellow safety vest with reflective stripes, an orange hard hat, and glasses is smiling. He is standing in a forest with a yellow skidder visible behind him. The background shows a dense forest of green trees.

FIRST IMPRESSIONS

635H

SWING BOOM SKIDDER

BTB visited Lumby, British Columbia to speak with long-time logging equipment operator Reg Dyck of Mercer Forestry Services to get his thoughts on the 635H swing boom skidder.

Mercer Forestry Services contracts to Interfor Lumber, out of Grand Forks, BC. Reg has worked for Mercer for six out of his 30-plus years in forestry. “Logging has changed, and so have the machines,” Reg comments.

“No longer do we work eight hours in daylight on gently sloped mountainsides. Now, much of our work is on very steep terrain, with 50 to 80 percent grades. And almost half of our shift is done in the dark during winter. New methods and machines have allowed us to harvest timber in these challenging conditions safely. Block layout plans, careful system checks, brighter lights, more versatile machines, and cable assist make it possible. Not to mention an experienced operator with nerves of steel,” Reg adds.

On the day of our visit, Reg is operating the 635H swing boom skidder on a small, 2 500 cubic metre cut block with a 50% grade. The skidder is tethered to a large remote-controlled winch at the top of the hill fitted to an old Tigercat feller buncher. The winch provides up to seventeen tonnes of pulling force. The 635H is pulling downhill to bring bunches to the processor at the landing below.

635H swing boom skidder operator Reg Dyck of Mercer Forestry Services.

BTB: How did you get into the forestry industry?

Reg: I like operating machines. I farmed before I got into the woods, working on dairy farms. Then I started working a day shift at a sawmill. One day one of the chainsaw operators didn't show up, so they asked me to fill in. It then turned into working almost around the clock, five days per week. Night shift at the sawmill, day shift in the bush with the chainsaw. I would sleep all weekend. I did what I had to do to get into the bush and get my foot in the door. When everything went towards mechanical logging, I wanted to jump on a grapple skidder, so I did that. I like rubber-tired machines. I've tried different track machines a few times, and I just always come back to the skidder.

BTB: How many hours are on the machine, and what were you operating prior to this?

Reg: I got the machine six weeks ago, and it has 236 hours on it. Prior to this model, I was operating older Tigercat models and John Deere skidders. I have been running skidders for 30-plus years now. I have been all over the province; pretty much operated every kind of skidder on every kind of terrain. I have been in it since it was done with a cable winch hook-up. I probably operated one of the very first Tigercat skidders that ever came out.

BTB: How do you compare the H-series machine over the G-series?

Reg: It's a big improvement. The H-series model has a much more

comfortable and user-friendly cab, the comfort of it, roominess, and visibility. The seat is very comfortable and easy to swing around. My two-way radio location, when I'm buckled in, is a bit too far away. But other than that, it's nice to have the extra room. Also, the diff lock indicator light on the controls is a huge improvement. Thank you, engineers! And the climate-controlled cup holder is a nice perk.

BTB: How do you find the 220 degree Turnaround® seat? Do you use it?

Reg: I use it all the time. I wish it were 360 degrees. But it is a far improvement over just having the front and back drive positions.

Long-time operator Reg Dyck gathering bunches with the new 635H swing boom skidder. Reg finds the swing boom advantageous. "It just makes the machine versatile," he says.





NOW, MUCH OF OUR WORK IS ON VERY STEEP TERRAIN, WITH 50 TO 80 PERCENT GRADES. AND ALMOST HALF OF OUR SHIFT IS DONE IN THE DARK DURING WINTER. NEW METHODS AND MACHINES HAVE ALLOWED US TO HARVEST TIMBER IN THESE CHALLENGING CONDITIONS SAFELY.

– Reg Dyck



BTB: What are the benefits of having a swing boom?

Reg: It just makes the machine versatile. It reduces the need to have a hoe chucker up the hill to put the piles in place. I can do it all myself. I can grab a pile on the left and put it together with one on the right without having to really change where I'm travelling, which is such a huge advantage. In addition to that, the grapple is quick and powerful. I think it really shines. I almost wouldn't go back. It is also very well-lit for night work. It has powerful and responsive hydraulics. It is the best suited and nicest machine I have ever run.

BTB: Have you noticed a productivity increase with the swing boom machine?

Reg: In this kind of application, yes.

BTB: Is this your first time being winch-assisted?

Reg: I did one other site before this. I have only done 25 hours tied to a cable. It feels good. It's just that extra security you need when you are on the side of a hill. I have done work on ground just as steep, coming down on your own. Tethered feels better.

BTB: How do you know what you can do with the machine on the more challenging terrain?

Reg: It's nothing that you can really explain. You just feel it in the seat of your pants, and you know if you can go down into the steeper grade or not. That's why it is challenging. Something you normally wouldn't

be able to do with the amount of traction that there is; it's a whole different world with cable assist.

BTB: Are there any Tigercat-specific features that make your job easier or more comfortable?

Reg: The cab is quiet. That makes my job a lot easier at the end of the day. It just takes a lot of stress off me. And you don't need to play your stereo as loud over top of the machine noise.

BTB: How has it been working with Inland?

Reg: There is very good communication between us and Inland.

BTB: Do you have family that also work in the woods?

Reg: My son is a heavy-duty mechanic for Inland's West Kelowna branch. And the other kids work for hotels and banks. I mean, I get up at 2:00 am, so I go to bed at 7:00 pm at night. And it is twelve-to-fourteen-hour days. There are not too many kids that want to do that.

BTB: What is your go-to music to listen to in the cab?

Reg: Mostly talk radio. Glenn Beck on channel 111. He's on every morning. He is informative and entertaining. And sometimes a little bit of CBC. ■



Scan to watch a video of Reg working winch-assisted on steep terrain near Lumby, British Columbia.

Reg has operated many different skidders in a variety of terrain conditions. He does like having the added security of being tethered. "It's a whole different world with cable assist," he comments.

ANSWERING *the* **MARKET'S CALL**

**Area procurement forester
Drew Battle talks about Battle
Lumber's family-rooted sawmill
business and expanding
harvesting operations, including
the recent addition of a C640H
clambunk skidder.**

– Samantha Paul



Area procurement forester,
Drew Battle of Battle Lumber.



C640H making its way to the landing along the log mats.

Drew Battle's grandfather, Wayne Battle, started Georgia-based Battle Lumber in 1962, initially producing 3x3 furniture squares and transitioning into pallets manufacture in the late 1960s. "We grew that side of the business, I reckon, up through the '80s and then started producing a little bit of grade lumber," tells Drew. During that time, Battle had some small-scale company-owned logging crews, but eventually exited that side of the business to focus on grade lumber production.

In 1993, Battle commissioned its state-of-the-art mill to produce grade lumber for export to markets worldwide while continuing to use the lower-grade material to produce pallets. Battle exports to nineteen countries, with product going to China, the Middle East, Europe and the Caribbean. "We've extended all over the world," says Drew.

One of the secrets to Battle's success

has been answering the market's call. That's meant learning to be the best in many different specialties and not being afraid to expand and adapt to meet the needs of a diverse customer base. It has resulted in the creation of many divisions within the company, including grade lumber, timber resources, dry kiln, pallets, and industrial products. "We're into a lot when it comes to lumber," states Drew.

The harvesting side

Four years ago, Battle Lumber started up in-house harvesting crews again. "One of our large contract loggers was at the age of retirement. He was looking to get out of the business and didn't have a succession plan. We decided at that point to purchase him. And since then, we've kept adding equipment." Currently, Battle is running fifteen harvesting crews – five company crews and ten contract crews.

"WE'RE INTO A LOT WHEN IT COMES TO LUMBER."

– Drew Battle

Battle Lumber has 32 pieces of Tigercat equipment on its harvesting side and three 880 loggers in its mill yard operation. The newest piece of iron is the Tigercat C640H clambunk skidder. "It has been added to one of the larger shovel crews, working bottomland tracts." On the job site, the C640H complements two Tigercat T250 loaders and two 635 skidders. "We use the C640H for the long pull distances," says Drew. "We're seeing a trend of tracts nowadays being harder to reach, with poor road systems, and we're having to pull wood longer distances." Drew will utilize the C640H when skidding distances are over a half mile (800 m).



T250D loading a truck headed back to the Battle mill yard.

Below: Tigercat S855E shovel logger loading the C640H.

**“SUPPORT FROM TIGERCAT DEALER ALLWOOD
EQUIPMENT AND THE QUALITY OF THE MACHINES
HAS KEPT US WITH TIGERCAT.”**



“That’s our standard. When we get to the half-mile pull, we’ll use the clambunk. It’s more cost-effective to pull it than build a road.”

Drew also uses the clambunk skidder when they are short an operator. “If I’ve got a guy out, where I’m running two 635s, and they’re keeping up with the loaders, I can put somebody on the C640H on the shorter pulls to make up for that person being out. It can pretty much do what two skidders can do, and we find that very beneficial with the current labour force.”

Battle also owns a C640E clambunk skidder, so the crew members noticed the changes made to the H-series model. Drew comments on the upgraded cab, referencing the 220° Turnaround® seat. “It’s an advantage, and it’s more comfortable for the operator; less stress on the operator’s neck and back. They’re also more productive, being able to face completely backwards and with less risk to run off the mat. Before, we would have to put turn-around spots in the mat, and now we don’t.” The operators like the joystick controls, stating that the throttle on the joystick is very convenient. “The cruise control is very beneficial,” says Drew, “especially when you’re going four miles [6 km] an hour down a mat.”

Support

Battle purchased its first Tigercat machine, an 880 logger, in 2014. Soon after, they bought two more 880s, all three for use in the mill yard. “After that, anything that Tigercat made that we could get, we bought,” states Drew. “Support from Tigercat dealer AllWood Equipment

and the quality of the machines has kept us with Tigercat.”

Battle Lumber is about 80 miles (130 km) from the AllWood Equipment dealership. The logging

“IT’S MORE COST-EFFECTIVE TO PULL IT THAN BUILD A ROAD.”

crews work in a 180-mile (290 km) radius around Wadley, Georgia. “The travel time can get pretty tough on AllWood, but they’ve always done everything they could to support us no matter where we were, even if it took putting a mechanic up in a hotel,” Drew explains. “We have a very good hands-on shop manager here, so we do a lot of our own maintenance and work on the equipment. But we also have the full support of Tigercat in AllWood. I mean, Allen [Coleman] and Jamie [Smith] are accessible 24/7. I can call them at three am on a Sunday. And if I need something, they’ll make it happen.”

Today Battle Lumber employs three generations with a total of ten family members assisting in all aspects of the company including sales, timber procurement, operations, and finance. Battle takes great pride in having multi-generational family employees throughout the company and many long-term employees that are like family.

Now with three sawmills, the company continues to grow and adapt where needed. “We’re constantly building and diversifying. We’ve got some big dry kiln projects going on as we speak. We just finished installing a new automated log merchandising system that complements the mill we built in 2015. We’ve always looked to improve efficiency and yield in our mills, so that’s not going to change.” ■

See July 2014 article ‘880 Logger Bucks Trend in Georgia Mill Yard’ on tigercat.com



Scan to watch Battle Lumber’s C640H in action.

BATTLE BY THE NUMBERS

- 70,000 pallets weekly
- 10,000 crossties weekly
- 10,000,000 board feet/month
- 500-600 crane mats weekly
- 19 countries supplied
- 35 Tigercat machines

Better SILVICULTURE IN MEXICO

Latin Equipment Norte (LEN) took over the Mexican territory as an official Tigercat Dealer in 2018. José Carlos Rocha Filho, LEN's marketing and commercial manager, relates his experiences as he ventures into silviculture practices to support customer success and sustainability-related land preparation goals.





The 760B mulcher with the 4061-30 mulching head efficiently shreds the logging residue, branches, stumps, and any remaining undergrowth. The machine is demonstrating solid performance and production results.

Tigercat first profiled the Mexico-based renewable forestry company, Proteak in the pages of this magazine back in 2016. Since then, the company has been continuously expanding and enhancing its operational activities throughout the southern region of the country. In addition to its eucalyptus and teak plantations, Proteak also owns and operates a high-capacity mill in the Tabasco state, producing MDF. With an annual mill input of over 550 000 cubic metres (approximately 550 000 tons), it currently produces over 260 000 cubic metres of fibreboard and 31 000 cubic metres of biomass per year, while employing more than 1,000 people. Proteak also manages an exotic wood trade division, exporting high quality plantation-grown teak round logs and sawn lumber to markets in Europe and Asia.

Forestry in Mexico

Southern Mexico has very favourable growing conditions to produce a diversity of high-quality forest plantations. In addition, current and forecasted domestic and export demand for its timber has created unique opportunities for the Mexican forestry sector. Currently, the country has over 760 000 hectares (1.9 million acres) suitable for plantations. Of that, 150 000 hectares (370,600 acres) are planted, comprised of various eucalyptus and pine species, gmelina, teak (*Tectona grandis*), and *Acacia mangium*. The main products derived from the plantations include round logs, sawn lumber, pulp, plywood, chips, and industrial products.

Proteak's plantations are clear-felled on six-year rotations using full-tree harvesting systems. Post-harvest,

the cut blocks typically contain residual wood material and debris that hampers accessibility for subsequent silvicultural activities.

Mulching is the first post-harvest operation that occurs on the cut block. Its purpose is to shred the logging residue, branches, stumps, and any remaining undergrowth. The second stage involves the use of a Savannah 340 plow to mound the material, preparing a planting bed up to 45 cm (18 in) above ground level, and subsoiling with a single swept shank to a depth of 40-50 cm (15 to 19 in). The raised beds are usually required to prevent the seedlings from drowning, and to promote more robust root development.

Since 2013, Proteak had been performing these two stages of site preparation using two Tigercat M726E mulchers, along with three



four-wheel drive agricultural tractors pulling the Savannah bedding plows. With a limited work season of seven months in good conditions, this system could prepare approximately 60-80

hectares (150-195 acres) per week or about 2 000 hectares (5,000 acres) per year.

The challenge

In the absence of a purpose-built prime mover to pull the plows, regular agriculture tractors are commonly seen in silviculture operations throughout southern



(L-R) Felipe Díaz and Edgar Zamarripa (LEN’s product support team), Francis Ruiz (Proteak’s forestry operations manager), José Carlos Rocha Filho (LEN’s marketing and commercial manager), Gabriel Turturiello (LEN’s managing director), Jurgen Stock (Proteak’s executive director of forestry), Felipe Gomes (LEN’s technical training).



Bird's eye view of the 630H utility carrier.

Mexico. These tractors are not designed to work in post-harvest sites. According to Luis Pacheco, Proteak's maintenance manager, the long-term use of ag tractors in silvicultural applications can significantly increase operating costs and negatively impact production targets due to excessive mechanical repair and downtime. He also claims that because of low ground clearance and reduced tire flotation, some of these machines are very susceptible to bog down in soft soil conditions, typical of the plantation land in this region.

Proteak's goal is to plant over 3 000 hectares (7,400 acres) of land per season, representing a 50% increase. Upon assessing several factors, such as production targets, sustainability goals, safety, uptime requirements, and the aging fleet, in late 2020 LEN proposed a Tigercat purpose-built site preparation machinery system to address the silvicultural challenge once and for all.

Optimal silviculture solution

In late 2020 Tigercat broadened its mulcher line-up with the larger, and more capable 760B. This 550 hp mulcher was primarily designed for high production, large-scale post-harvest applications. Furthermore, Tigercat also agreed to customize a 630H skidder, fitting it with a drawbar in order to act as the prime mover for the plow system. This provided the purpose-built alternative to ag tractors that LEN and Proteak were seeking in order to meet the productivity goals.

At the end of 2021, the 760B mulcher arrived in Mexico. Fitted with the Tigercat 4061-30 mulching head, the machine produces a three metre wide swath. The boom float system enables the head to follow ground contours automatically. The machine has accomplished solid performance and production results in the first months of operation. Operating costs are the key factor, and due to hydraulic efficiency and quick working travel speed, production per litre of fuel

consumed is superior to comparable products.

In tropical conditions where ambient temperatures commonly reach over 40°C (104°F), the highly efficient hydraulic-driven cooling system and variable speed fan keeps the heat exchangers clean while maintaining the correct operating temperature range. This represents a big advantage in terms of uptime, as the work schedule is not interrupted due to overheating or frequent cleaning of the heat exchangers.

Furthermore, the new generation of RemoteLog has impressed Proteak's analytics management team. The telematics system allows Proteak to gather relevant information, such as mechanical parameters and production metrics during all shifts regardless of how remote the operation is. Proteak can diagnose issues, predict maintenance requirements, and conduct preventive actions. "Tasks and data collecting that were complicated and took time to be done, can be achieved quickly



In the cut blocks, the plow mounds the soil and remaining material, preparing planting beds up to 45 cm (18 in) above ground level. The single swept shank subsoils to depths of 40-50 cm (15 to 19 in).

based mostly on the RemoteLog parameters. It helps us enormously to organize machine interventions, optimize services and minimize downtime,” says Francis Ruiz, who manages the silviculture crew.

Currently, Proteak operates three Tigercat 630 series skidders in its eucalyptus harvesting operations. With the oldest unit approaching 35,000 operating hours, the machines have proven to be very reliable, providing the confidence for Proteak to invest in the new skidder-based concept for the silviculture application. The first of two 630H utility carriers rolled into Proteak’s facility last March and at first impression, it exceeded all expectations. In addition to the spacious cab, the machine brings the advantage of the Turnaround rotating seat, notably improving rearward visibility. “Our operators and I love them,” comments Francis.

Luis Pacheco also highlighted that the reliable structural and driveline components all contributed to the company’s decision to go with 630H for silviculture. “The transmission doesn’t overheat as the other tractors do. The articulation joint and axles are really built to last. What else would we expect from a hauler?”

The pair of 630H carriers has provided Proteak with a massive productivity boost. They are sturdier, stronger, and much faster than regular agricultural tractors, which in turn, makes them more productive and accurate. The productivity gains are significant. The two machines are averaging up to 130 ha (320 acres) per week, double the production of the three tractors they replaced. This production rate easily exceeds all productivity and performance expectations and assumptions.

When Latin Equipment Uruguay became aware of this purpose-built silviculture project, they showed interest in visiting the operation with the Kolbalsiuk family, one of the most experienced Uruguayan forestry contractors. In late April, Latin Equipment Uruguay S.A. MD, Gabriel Turturiello and commercial manager, Francisco Fros accompanied the Kolbalsiuks to learn about Proteak’s firsthand experiences with the new system. They also had the opportunity to compare the purpose-built carriers to the regular agricultural tractors that they are replacing.

Productivity and cost studies up to this point are demonstrating excellent results – increased productivity and a 30%

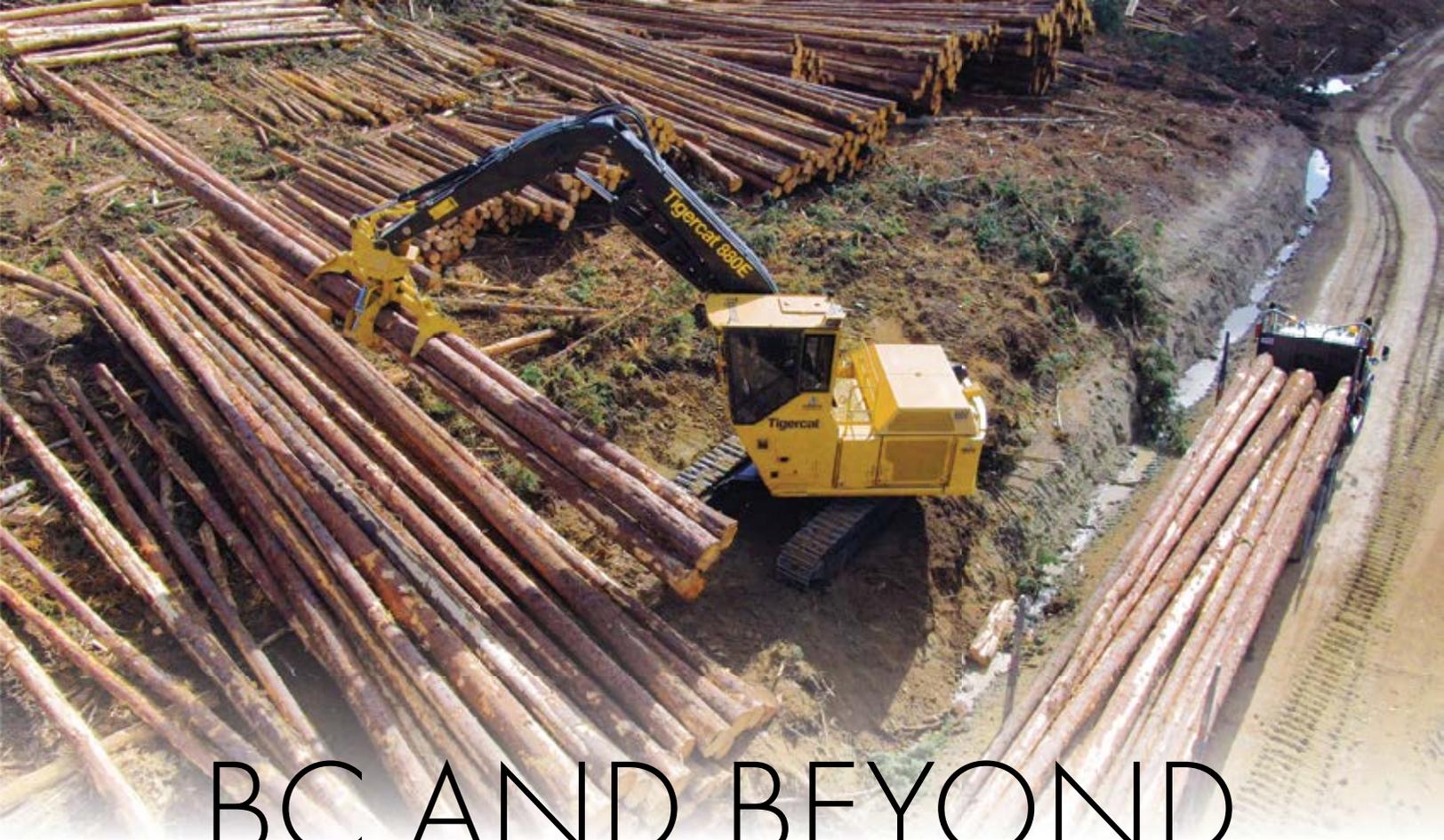
reduction in fuel consumption. Latin Equipment takes pride in representing a company like Tigercat that continues to develop innovative products, cutting-edge technologies, and first-rate services to meet industry challenges. “The commitment to offer the best operational efficiency, aiming to reduce costs and generate higher productivity, always in accordance with sustainability guidelines, is a primary goal of Latin Equipment,” declares Gabriel. ■



Scan to watch the 630H silviculture utility carrier in action.

TIGERCAT IRON

Proteak was the first company to buy Tigercat machines in Mexico. Today, the company owns fourteen machines – three mulchers and two silvicultural carriers, as well as three full-tree systems consisting of an 845 series track feller buncher, a 630 series skidder, and a grapple saw equipped T250 series loader.



BC AND BEYOND FOR UBLEIS LOGGING

Established British Columbia harvesting company responds to industry and market uncertainty by diversifying into second market in Saskatchewan. Solid relationships with strong Tigercat dealers in both provinces aid in growth and expansion.

– Chris McMillan

The village of Fort St. James in British Columbia shares its name with the historic fur trading post, located near the southern tip of Stuart Lake. The post was founded in the early 1800s by Simon Fraser and the North West Company on Nak'azdli Whut'en First Nation land, and was later operated by the Hudson's Bay Company. It served as the chief trading post in north-central BC, and the administrative centre of the District of New Caledonia.

Today, forestry is the largest industry in the Fort St. James region, with Apollo Forest Products sawmill, and a bio-energy plant currently in operation. In addition, Oregon-based Hampton Lumber is currently building a new sawmill in Fort St. James.

Ubleis Logging Ltd. has deep roots in the community. Bob Ubleis started the company in 1954 and became the main logging contractor for Stuart Lake Lumber. Three

generations later, Bob's grandsons Rob Ubleis and Mike Gardner run the company and have harvesting contracts in BC and Saskatchewan. As Rob explains, it is a true family company. "My father Gordon, and Mike's dad, Ted were integral in building the foundation of our business today."

Converting to Tigercat

Coming out of the 2009 recession, one of Rob and Mike's main

Above: The 880E logger equipped with the BT08 grapple loading timber near Fort St. James, British Columbia.

equipment suppliers had gone out of business. When they decided to look for a new feller buncher, they tried a Tigercat 870C as well as two other brands, and ended up purchasing the Tigercat. “The real reason for Tigercat was probably Inland,” Rob explains. “We believed in their team from the start, and they got behind my vision for the future growth of our company with unwavering support. We were a small company back then, maybe 200 000 metres a year and now we do approximately 800 000 cubic metres. Inland and Tigercat have treated us well since the first machine. Obviously one of the biggest factors for both Tigercat and Inland’s success I believe, is they listen to their customers.”

In September 2021, Ubleis Logging took delivery of a new 880E logger equipped with the Tigercat BT08 butt-n-top grapple at a site near Fort St. James. I tagged along with Steve Antonenko, Inland sales consultant, and Jochen Reiter, Tigercat factory support representative. We were

all interested in the operator’s impressions, it being the first Tigercat butt-n-top in the region. After putting the new machine through its paces, operator Benoit Lessard commented, “I like the profile of the grapple tongs. They allow the wood to roll up just right.”

Rob strongly believes in the importance of a large stock of parts at the dealership to reduce unexpected downtime and counts Tigercat’s strong emphasis on parts commonality as an additional advantage in managing machine availability. “Inland has done a really good job with Tigercat, building an expanded parts warehouse in Prince George to help support the product. That is why we focused so heavily on Tigercat, and I’m glad that we did, because of the commonality of parts between machines.” When asked about how his operators like the Tigercat machines, he replies, “We are almost 100% Tigercat in our loading, bunching and skidding

phases and for the most part, zero complaints. I would say if anything, it helps with recruiting and the retention of employees.”

East and west

Ubleis has strong and longstanding relationships with Dunkley Lumber and Canfor in BC, supplying sawlogs and pulpwood in varying lengths, from 5-19 m (16-62 ft). In 2019 Rob and Mike were looking to diversify due to volatility in the BC lumber market and stumpage rates. An opportunity arose in Saskatchewan to supply Edgewood Forest Products, which is owned by Dunkley Lumber.

Since expanding into Saskatchewan, the company has been supported by Redhead Equipment, the Tigercat dealer for the province. “We are building a very similar relationship to what we have with the Inland group,” says Rob.

Rob works with Chuck Miles, territory manager at Redhead.

A new high flotation 630H ready to go to work in northern Saskatchewan.





880E operator Benoit Lessard.

Chuck recalls, “When Rob was considering expanding into Saskatchewan, he had a very proactive approach. He visited our dealership, and met with the managers of each individual department and myself. He wanted to get a feel for how Redhead Equipment operates and to discuss the support he expected in order to be efficient in their operations.”

Logging in Saskatchewan, although mainly flat with typically smaller wood than BC, has its own unique set of challenges that became apparent to Rob during the first season working in the province. For instance, jack pine, which is typically found in sandy soils, is a big part of the harvest. Some of this sand can be very fine grained and is often referred to as sugar sand. “Sand is an issue, but the low-lying landscape and lack of gravel or rock also causes issues when road building, and for site access,” comments Rob.

Log trucks have difficulty driving on the sand to such an extent that contractors require a skidder to assist the trucks getting in and out. “In BC, when there are poor spots in the road we can reach into the mountain and grab some material. Here there’s nothing,” says Rob.

Initially, Rob brought a couple of 630D skidders from BC to Saskatchewan. Lately, the company has been purchasing additional equipment, replacing older machines that were acquired along with the purchase of the Saskatchewan operation.

During the first season Rob added an 855E buncher and a 630H skidder to the Saskatchewan fleet. The 630H was the first in the province and was only the third off the assembly line. “It was equipped with 44-inch-wide tires to increase the flotation needed for the soft areas, and the skidder performed flawlessly,” Chuck says. Another

855E and 630H combination was added to the fleet in the second season. The company currently operates nineteen Tigercat machines in BC, and nine in Saskatchewan.

Although the terrain and timber species in northern British Columbia is vastly different to that of eastern Saskatchewan, Rob says that as far as equipment goes, the two regions are not that far apart. “Instead of X870D bunchers, we use 855Es in Saskatchewan. In BC we have the 632H and 635H, where in Saskatchewan we have the 630H. The size of timber and the hilly terrain in BC is handled well with the larger machines, however the equipment we use in Saskatchewan would also do just fine in BC. We ran it here previously.” ■

MECHANIZING *Teak*



Brazil's 4M Agroflorestal seeks to mechanize teak harvesting operations

– Samantha Paul

Due to its durability, natural water-resistant qualities, and striking wood grain, teak has historically been used to manufacture outdoor furniture, boat decks, and other goods destined to be exposed to the elements for extended time periods.

Due to the high demand for this timber and the relatively short rotations, sustainable teak production is underway in plantations across many dry tropical climates. Although teak (*Tectona grandis*) is native to the tropical regions of southeast Asia, the cultivation of plantation teak

is economically viable in other tropical areas such as central and South America.

Plantation teak is considered a renewable resource as it is harvested and managed to produce a sustainable supply. The Forest Stewardship Council (FSC) has granted certification to several sustainable teak plantations in Latin America.

4M Agroflorestal Ltda

Based in São José dos Quatro Marcos, Mato Grosso State, Brazil, 4M Agroflorestal's sustainable teak plantation project commenced ten

years ago. The company presently manages 2 600 hectares (6,400 acres) of clonal teak plantations.

When 4M decided to mechanize its harvesting operation, company representatives reached out to Brazilian Tigercat dealer Tracbel. Forestry director, Cairon Faria and Tracbel's forestry sales specialist, Wigando Neto worked closely with 4M to understand the harvesting scenario and the specific machine requirements. They ultimately recommended a narrow width wheel feller buncher.

Cairon notes the cooperation between Tracbel and Latin

(L-R) 4M's machine operator, Claudio Alves Teixeira; 4M's forestry manager of mechanized operations, João Osvani Messias Junior; 4M's forestry manager of manual operations, Marcio Saad; 4M's machine operator, Francismar Lira de Souza; Tigercat's field representative, Waldir Kelcheski.

Equipment, Tigercat dealer for much of South America outside of Brazil. Cairon consulted with José Carlos Rocha Filho, marketing and commercial manager at Latin Equipment Norte. "José helped a lot during the technical negotiations of this project," says Cairon. "Latin Equipment has great experience from the teak operations in Mexico."

The planting spacing is 3,8 m x 3,8 m (12 ft 6 in). The Tigercat 720G equipped with narrow offset 28Lx26 tires measures 2,79 m (9 ft 10 in) wide, allowing the machine to easily manoeuvre between rows without damaging the valuable standing trees. The 720G is used in three thinning stages at six, eight, and ten years. In the first stage, the removal rate is 25%. In the second and third

stages another quarter of the stand is harvested. The final felling is planned when the remaining stand reaches sixteen to eighteen years of age.

Consumers have become more aware of the destructive practices of illegal logging in native southeast Asian forests. Governments and private industry are responding with policies, certifications and regulations favouring sustainable plantation-grown teak. "As teak plantations spread throughout Latin America, harvesting teak trees with this configuration will likely increase," says Brazil-based Tigercat field representative Waldir Kelcheski. "I could even see this configuration being used in other areas of Mato Grosso State, where there are large concentrations of teak plantations."

When the machine was delivered, Waldir stayed in the field for two weeks, training and supporting the operators to ensure success with the 720G. "The outcome was excellent," says 4M Agroflorestal's forestry manager João Osvani. ■



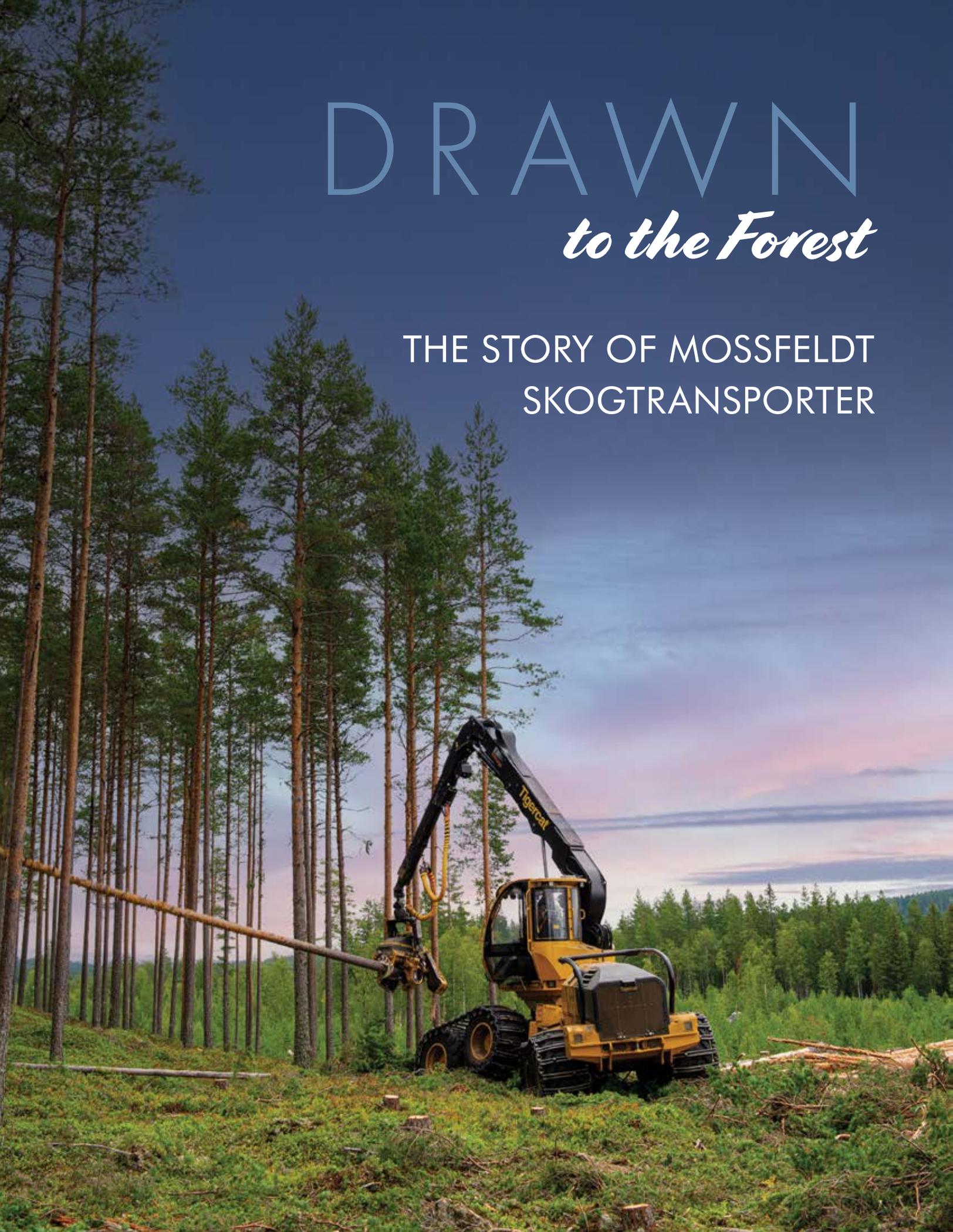
Read more about teak harvesting in the November 2020 *Between the Branches* article, *Mechanized Teak Harvesting*.

The 720G thinning between rows.



DRAWN *to the Forest*

THE STORY OF MOSSFELDT
SKOGTRANSPORTER



Jorge Victoria lands in the town of Ekshäräd in central Sweden, visiting the Mossfeldt family to talk about their history, operations, and experience with Tigercat equipment.

In 1967, Lars-Erik Mossfeldt started operating a forwarder as an employee of Uddeholm. After working many years for the company, he decided to strike out on his own. “At the time, it was popular to start your own business, so I started mine,” says Lars-Erik. In 1984, Mossfeldt Skogstransporter was born.

He recalls he had to pick up the first forwarder he bought – the Blue Brunett – from another town about 200 km (120 mi) away. “It took me two days to bring the machine. There were no trailers around at the time. You had to drive the machine yourself.”

Today Mossfeldt Skogstransporter has a 100 000 cubic metre contract

with Stora Enso, cutting a mix of pine, birch, and spruce. For that purpose, the company currently owns three Tigercat machines: 1075C and 1085C forwarders, and an 1165 harvester equipped with Tigercat’s new 534 harvesting head.

Lars-Erik’s son Roland joined Mossfeldt in 1995 after graduating from a forestry program at Södra Viken Naturbruksgymnasium, a trade school in Sunne. Roland explains that in Sweden, a certification is required in order to operate forestry equipment. “There are strict forestry regulations, so the forestry training program prepares you for that. For instance, heavy equipment cannot touch a body of water, even if it’s a small creek. You need to build a bridge

first. Sweden is very protective with nature and the environment.”

Roland’s son Henrik followed the same path. He graduated from the same forestry program in 2018 and joined the company upon graduation. When Henrik was little, Lars-Erik and Roland used to take him to the woods often where he developed a fascination with forestry machines. “I always thought it would be cool to operate one of those machines. I now see the benefits of them taking me to the woods. I have the greatest job I could ever have. I don’t want to change it for anything.”

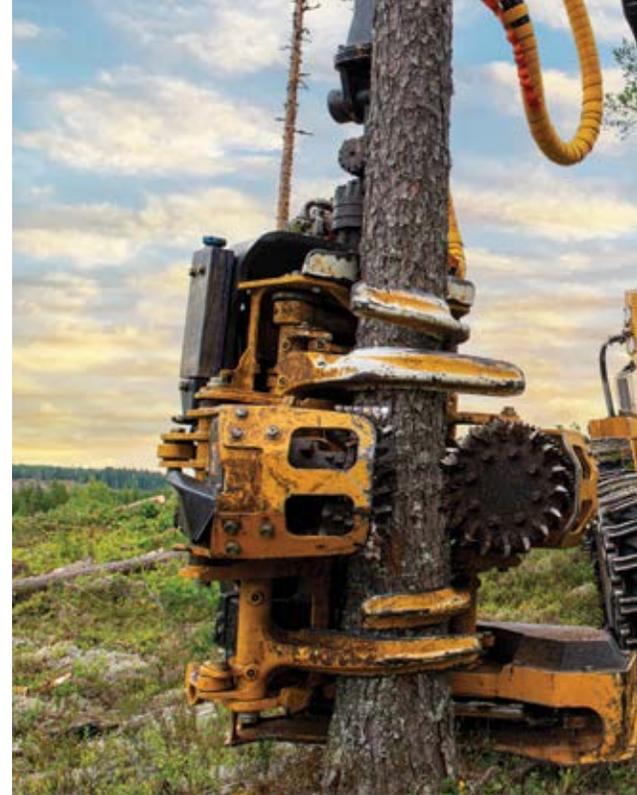
Roland’s younger son, Marcus trained to be an auto mechanic but shortly after working his first job



Placing the last grab of logs on the 1075C forwarder.



Three Mossfeldt generations. Roland, Lars-Erik, Marcus, and Henrik.



The first Tigercat 534 harvesting head in Sweden.

in the trade, he decided that he also wanted to work in the woods. Marcus is currently operating the 1085C forwarder while Henrik operates the 1165 harvester. Gustaf, a company employee, operates the 1075C.

Although Henrik got his start in the logging industry driving a forwarder, he now prefers to operate the harvester. He strives to make the best sorts to make it easier for forwarder operators. When a forwarder operator acknowledges Henrik has done a great job, that's the only reward he needs. "I can go home feeling I have done something great." He emphasizes that going from forwarder operator to harvester operator is the ideal transition. "It makes you a better harvester operator because now you understand what's expected of you."

A pig in a bag

In 2009, Mossfeldt purchased a pair of 1075B forwarders, the first Tigercat machines in the company's

fleet. "The forwarders were pretty good from the start. You could immediately notice the difference. It was a success switching to Tigercat," comments Roland. His relationship with Tigercat has been very satisfactory, so he continues to add Tigercat machines to his fleet. "People in this business are always curious about new equipment. So, when we heard about the new 534 harvesting head, we wanted to give it a try."

Mossfeldt is the first company in Sweden to purchase the newly released 534 harvesting head. "So far it is performing great," says Roland. "It seems well designed and thought out. The hoses seem to be well protected. It's a new piece of equipment with about 200 hours on it so we are still learning it and getting the feel of it." He adds that keeping the carrier and head with the same brand makes things easier when it comes to support. "It's only one number to call if I have a problem." (The Tigercat dealer in

Sweden is TigercatAB, a subsidiary of Tigercat Industries.)

It's not the first time Mossfeldt made a bet by purchasing a newly released Tigercat product. Back in 2016, the company was the first in Sweden to purchase a 1085C forwarder. "In Sweden we call it a pig in a bag. When you buy something without really knowing much about it and hope it works out. Well, the 1085C worked in our favour," says Roland. He adds that despite Tigercat not being as well known in Sweden as it is in North America, he has not heard of a single Swedish logger being disappointed with the brand.

First impressions

Henrik Mossfeldt has been the sole operator of the 1165. The first thing he was impressed with was the wide working area. "To be able to turn 360 degrees is a dream. I wasn't able to do it with my previous harvester. That's the biggest benefit I see with this



Henrik says that his previous experience as a forwarder operator makes him a better harvester operator today.

“I REMEMBER THAT WITH MY VERY FIRST FORWARDER, I WASN’T ABLE TO TURN THE SEAT AROUND LIKE IN A FORWARDER TODAY. I HAD TO TURN AROUND AND STAND ON MY KNEES ON TOP OF THE SEAT WHEN I HAD TO LOAD THE MACHINE.”

– Lars-Erik Mossfeldt

Tigercat machine.” He adds that the visibility is very good. “You can see exactly where you cut and how far you can reach.” In terms of cab space, Henrik says that the 1165 cab is very spacious, bigger than his previous harvester. Service access is also great. “I changed oil filters and that was very easy to do. Nothing was in the way.” Henrik had no previous experience with the D7 harvesting head control system, but says that it has been really easy to learn and use. In terms of fuel consumption, the Tigercat harvester is burning four litres (one US gal) per hour less than the previous

harvester. “The support has been great. One phone call and they will be here on the same day, or the next day to assist me.”

The legacy lives on

Lars-Erik has been working in the woods for most of his life and he has no plans to stop. Sitting in the machine and enjoying the view is still his favourite part of the job. “Tigercat machines are smooth,” he says. “After 55 years working in the forests, they are easy on my body. I don’t feel anything while driving them.” It wasn’t always

this way. “I remember that with my very first forwarder, I wasn’t able to turn the seat around like in a forwarder today. I had to turn around and stand on my knees on top of the seat when I had to load the machine.”

Henrik comments that working with family has been great. “We obviously have some ups and downs, but at the end of the day we always help each other. We are a team.”

Lars-Erik is hopeful for the future of the company and although he’s still involved in the business, he has placed his trust with his son, Roland and grandchildren to continue his legacy. “They chose this path for themselves. I never forced them to get into logging. We were all drawn to the forest.” ■



Scan to watch the 1165 equipped with the 534 harvesting head in action.



WORKING SAFELY AROUND MACHINES

Laura Rourke, Tigercat’s safety manager talks about how to stay safe when working under or around hydraulically powered machinery.

H ydraulically powered equipment has many benefits, but also some significant inherent risks. Unintended and unanticipated movements of machine parts can cause people working on or around machines to be injured or killed.

Working under suspended loads is very dangerous. Adjusting pressures, disconnecting hydraulic hoses, or the failure of a component in the hydraulic system could cause a boom, blade or attachment to suddenly drop. Due to these risks, many countries have passed laws against working under suspended loads. Tigercat has designed several tools to assist workers when servicing machines to prevent this type of accident from happening. These tools, components or structures are always painted red.

Cylinder lock

A cylinder lock acts as a block, preventing movement of the cylinder and the boom – or whatever component the cylinder is controlling – in the event of a failure in the hydraulic system.

Cab tilt safety bar

Many of the operator’s cabs on machines like skidders and loaders tilt – either for transport or to access valves and other components located underneath the cab. Some product groups like skidders, forwarders, loaders and loggers are equipped with cabs that tilt over centre. It is critical to ensure that the machine is parked on level ground and that the cab has tilted over centre before working in the area underneath the cab. Conversely, the new TGi 920 dozer does not tilt over centre and thus requires the cab tilt safety bar to secure the cab for service work underneath.

Safety pins

Tigercat material processing machines like the 6900 grinder use safety pins that are inserted under raised elements like the hog box to prevent the components from dropping while workers are performing service underneath.

Never work under a cab without ensuring that it is properly braced with the cab tilt safety bar, or opened fully over centre.

Tilt frame lock

Tigercat harvesting heads have two locking points to prevent unintended movement. The tilt frame lock bolts can be installed one of two ways. In the upright position, the tilt frame is locked to allow for lubrication and service. In the down position, it allows for access to the hydraulic control valves and components that are located at the back of the head.

Articulation locks

In addition to lifting, many Tigercat machines articulate for steering. Tigercat provides an articulation lock to prevent the machine from articulating, safeguarding work around the centre joint. Additionally, the articulation lock also prevents unintended movement during transport.

KEY TAKEAWAYS

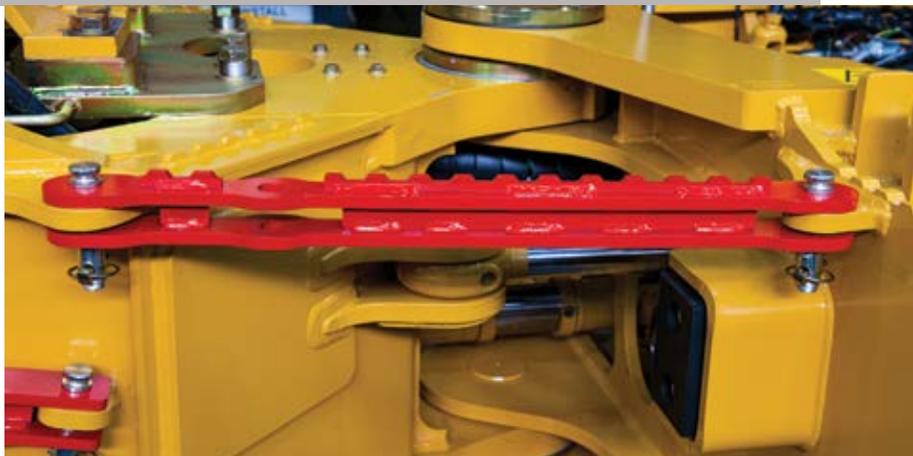
- Employers should ensure that company safety programs include training on how to service equipment safely.
- Crew members should know the steps they must take to ensure the equipment is safe before servicing. Always refer to the Operator's Manual.
- Never stand under an object or suspended load that is only supported by the machine's hydraulic system.
- Be aware of machine pinch points. No one should ever place themselves within the range of motion of the working parts of a machine without first taking steps to prevent unintended movement.
- Engine enclosure roofs, access hatches, swing-out doors and tilting cabs should always be in the fully open or over centre position. If equipped with blocking safety equipment, it should be securely in place before performing work.
- Booms, cranes and blades should be supported with commercial grade, rated jack stands if they must be in an elevated position for service.
- Always lower booms and cranes so that the weight of the boom and attachment is resting on the ground and the boom or crane is properly braced. Never depend on the harvesting head attachment to support the boom or crane unless the frame locking bolt is installed.
- Ensure that everyone understands how to properly use the red safeguards and lockout devices that come with the machines.

If we all take a moment to think through how to perform work in a safe way, we can help prevent accidents and get home to our families at the end of the day.

ALWAYS REFER TO THE OPERATOR'S MANUAL



Tigercat machines come equipped with appropriate safety equipment. Ensure that it is stored in the correct location and that all crew members understand how, when, where and why to use it.



The centre joint articulation lock prevents the machine from steering. It should always be used when working in the vicinity of the centre joint or transporting a machine.



HIGH VOLUME CTL IN NEW BRUNSWICK

Sean Storey, co-owner of S & S talks us through the New Brunswick timber industry, and his high volume, multiple-crew cut-to-length operations anchored by Tigercat harvesters and forwarders.

– Paul Iarocci

S & S Logging Ltd is based in the village of Doaktown, approximately in the centre of the Canadian maritime province of New Brunswick. The company is owned by Sean and Sandra Storey. Sean runs the harvesting operations and Sandra manages accounting, payroll and administration.

The region has a rich logging industry history dating back to the Napoleonic Wars. In the early nineteenth century, Napoleon's system of trade embargos strategically cut Britain off from its traditional Baltic wood sources. Britain, in turn, looked to North America as a viable alternative. The colony of New Brunswick had the geographic placement and all the required resources to supply Britain with quality shipbuilding timber. The network of rivers provided transportation for the towering white pine and red spruce that were intensively harvested, initially for masting and later for square timber.

Toward the second half of the century, as the big timber forests and demand for wooden shipbuilding materials waned, a more efficient sawmill industry developed and flourished. Resource depletion and increased infrastructure and transportation costs eventually crashed the lumber industry in the early twentieth century and the region's forestry activities transitioned predominantly to pulp and paper production. Today, with ultra-efficient harvesting and sawmilling technology and optimization, New Brunswick once again is a lumber producer.

Sean's 30-year career as a harvesting contractor came about somewhat accidentally. "I was involved at an early age as a kid just growing up around logging. I always worked for my father. He was a contractor for years," says Sean. "I actually wasn't going to go do this. I was going to go to forestry school. I had written the

entrance exam and then my father took a heart attack. He was still running a small business, basically with skidders and hand cutters." Sean decided to defer his plans for a year to help out with his father's business. And as he puts it, "It's been a long year – I'm still here."

Sean's father eventually sold off his equipment and exited the industry. By that time Sean had decided that he would start contracting himself. "The first skidder I bought was an old 518 Caterpillar line skidder in 1988. Then I went to work for J. D. Irving. We were cutting with chainsaws and skidding full tree to the road."

Sean recalls that in the early nineties J. D. Irving made the decision to mechanize its operations and change to a short wood system. "They talked to some of the younger people to see what we were interested in. I decided I'd like to do some forwarding."

S & S owners, Sandra and Sean Storey.



Derek Demone is piloting one of Sean's eleven 855 series track harvesters operating in a dense mixed stand.

Sean recalls that when he started in the eighties, there were no cut-to-length systems in the province that he had ever seen. "I remember the first one that came, and they weren't what they are today. They weren't much more than a glorified farm tractor and they weren't made for this environment. They didn't really catch on a lot, not until the North American manufacturers started to get involved."

Soon after Sean switched to harvesting. Throughout the nineties, he rotated through the various harvester manufacturers of the day, acquiring more machines and more volume. As cut-to-length machinery began to mature, he shifted from European to North American built machines. Sean recognized that regardless of what brand of equipment he was running, it was machine downtime that most affected his production,

and a lot of the downtime came from waiting for parts shipments. In the end it was proximity to parts

**"IF IT'S NOT WELL
MAINTAINED, THEN
THEY'RE STANDING
OUTSIDE WITH THE
FLIES. PREVENTATIVE
MAINTENANCE
IS THE CHEAPEST
MAINTENANCE YOU
CAN DO."**

– Sean Storey

that led Sean to look into Tigercat, a Canadian manufacturer, and he eventually purchased his first Tigercat machine in 2011.

The Acadian forests of New Brunswick are sandwiched between the northern hardwood forest ecosystem extending up from New England and the boreal forest to the north. Consequently, it retains the species and characteristics of both. Sean encounters a mix of SPF, as well as hemlock, cedar and many hardwood species. Much of the commercial forestry in the province takes place in managed forests on Crown land. Sean estimates that his company is working on Crown land 85% of the time and the remaining fifteen percent on private woodlots. While Sean used to do most of his work in unmanaged forests, he estimates that now it makes up about 25% of his work. S & S has a highly diversified customer base, delivering product to thirteen different mills.

The company currently owns eleven Tigercat 855 series track harvesters, and five forwarders. Of the five



A 1085C forwarder operating in a private stand. Sean says that the higher capacity forwarders are a big advantage, often allowing Sean to get by with building fewer roads.

forwarders, three are 25-tonne 1085C models and two are 18-tonne machines from another manufacturer. It is a flexible fleet, allowing Sean to respond to challenging or suboptimal contracts by making adjustments to the system.

Depending on the contract, some of the machines work a single shift and some work double shifts because certain mills take deliveries around the clock and also prefer to manage as few machines as possible on a given licence. But Sean explains that in order to provide his employees with a good work-life balance, all operators and service personnel are on a five-day work week.

S & S produces approximately 500 000 cubic metres annually. I ask Sean what is the optimal amount of volume and machine

count. “I tell people all the time. There’s no money in one.” Sean feels that the ability to source reliable equipment with high uptime rates has allowed him to increase the size of his business and total annual volume without necessarily having a proportional increase in overhead and headaches. “We run a skeleton crew here. I have a couple of full-time mechanics at the shop and a welder who works mostly for me. And I do a little bit of the on-call stuff. But with the amount of gear we have, if the machines weren’t steady, I would require twice the support staff,” says Sean. “Honestly, I’ve got some that I don’t see from oil change to oil change. They’re the same machine at 20,000 hours as they are at zero.”

For Sean, the dependability of the equipment makes growth-related

business decisions easier. “I’m kind of a Tigercat addict. I like the product, and I like the advances in the technology, so I like to purchase them new. So, if there’s an opportunity that comes up, we’ll cut it.”

Cut-to-length

New Brunswick’s segmented forests lend well to a CTL system. The harvesting sites range from just a few hectares to 100 hectares (1 ha is equivalent to 2.47 acres). The machines move often. The CTL model is much more agile for small tracts scattered around the province.

On unmanaged sites, it is common to have twelve to fifteen sorts. “We could have yellow birch, white birch, red maple, rock maple and oak. There are two or three different cedar products. The mill



(L-R) Tigercat district manager Chris Baldwin with Wajax sales specialist, Sandy Hodgson, Sean, and Kyle Donovan (forwarder operator).

I'm cutting for on this job, we cut four different lengths of stud wood based on a price matrix, top size and length. We have spruce pulp and spruce logs, white pine logs, and white pine pulp sometimes. There is less resource available, and the wood is younger, and so it needs to be value optimized. "Basically, the mills are trying to find ways to get more saw material out of less wood."

Sean explains that the pulpwood adds additional sorts because some mills only want a certain hardwood species. "One mill only wants pure maple. The next mill will only want pure birch. Another will take a mixture of beech and ash. And poplar, it always has to be separate."

Sean cites additional advantages beyond the agility of the systems and the ability to produce and manage so many different products. "For me, environmentally, cut-to-length is a big deal because we leave all the brush in the woods, and it's a lot less disturbing to the land. We're not dragging full trees and taking the moss all off the ground. We can go into areas that maybe you couldn't work with a conventional system."

Everything gets forwarded to roadside right away and the products are hauled as needed to the different mills. S & S doesn't do any trucking. "I have a truck contractor, TCU Transport out of Blackville, and basically, we are a team. He has over twenty trucks now. It's a good system. He doesn't cut. I don't truck. He depends on me and I depend on him."

More with less

The CTL system uses less labour and Sean points out that fuel prices are a big deal these days. "You're running less machinery to do the same thing." Speaking of the 1085C forwarders, Sean comments that they are better for longer distance forwarding. "They'll hold more capacity, they're more efficient and it allows us to build fewer roads." Sean cites roadbuilding as a significant cost. And due to the short length and small piece size of much of the wood he encounters, skidders are just not efficient. "A skidder is limited to the size of wood. If the machine is in short wood, the operator cannot possibly achieve a full grapple. But with our big Tigercat forwarders, you can put a lot of wood on them."

“I’M KIND OF A TIGERCAT ADDICT. I LIKE THE PRODUCT, AND I LIKE THE ADVANCES IN THE TECHNOLOGY, SO I LIKE TO PURCHASE THEM NEW. SO, IF THERE’S AN OPPORTUNITY THAT COMES UP, WE’LL CUT IT.”

– Sean Storey

Flexibility

Sean retains a single Tigercat feller buncher that he uses strategically. “We do a lot of road work with it. If we have what we call a dirty block – with a lot of advanced regeneration or a lot of bushes, then we’ll use the feller buncher for that. Or if it is what we call a variable retention clear cut, meaning they just want to flatten and replant it, then you don’t have to protect the regen.” The buncher will be followed by one of the 855 harvesters. “We basically turn one of our harvesters into a processor for that application.” Sean says that the increased cost of adding a machine to the system is offset by the increased productivity of the feller buncher in these specific applications.

“We use the buncher for a lot of private land because it usually isn’t managed as intensively as the Crown land. So you get more poor blocks on private land than you do good ones. If you’re going to do private land work, you can’t go turning away all the poor blocks because you’re not going to be very busy. So you have to find a way to do it efficiently.”

In addition, out of an employee count that normally hovers around 35, Sean has three or four chainsaw operators to fell oversize trees. “I’ve got one guy that is 76 and he works

every day. Very dependable. It’s a good healthy lifestyle – the people that like it really like to do it.”

Living in a sparsely populated rural area, employee retention is very important to Sean. For his operators, the most important aspect of the machine is the seat. It has to be comfortable, adjustable and the operator has to be able to see properly. “They all know that if they’re given a good machine, the Rolls Royce of machines, then keep in good shape and look after it like it’s your own. You sit in this more than you sit on your couch at home. And I tell them all, if you call and tell me you had to take half an hour today to clean up the cab, I am good with that. I want to see it greased, and I want to see it well maintained and I have no issue paying for that. And it’s in their own interest because if it’s not well maintained, then they’re standing outside with the flies. Preventative maintenance is the cheapest maintenance you can do.” (I experienced the flies. Definitely better to be in the cab.)

Sean says that he receives excellent support from Wajax in Moncton and his sales specialist, Sandy Hodgson. He also has high praise for Tigercat district manager Chris Baldwin. “Wajax has good support and the support from Tigercat is absolutely second to none. Chris takes the time, and he always wants

to know if I have an issue. He wants feedback. He wants to know what I did, if it got fixed, and how it got fixed. And if you don’t call him back and tell him, he’ll call you. I’ve never had that before. There are other manufacturers that have support, but not to that degree.”

Sitting in the Storey’s kitchen with a coffee in the late afternoon, I listen to Sandra giving Sean a rough time about his Tigercat equipment addiction. She is an integral part of the business. Sandra tells me that she learned the bookkeeping from Sean’s mother. “She taught me – just on a smaller scale. Then once we got married, I started to take it over as she was getting older.” Their son Zachary is currently working as an operator as he finds his own footing. It feels like a small family business, even though Sean is one of the largest contractors in the province. And all jokes aside about Sean’s stress-inducing inability to say no to more volume and more machines, the pair seems truly content.

As Sean puts it, “I enjoy being a logger. When I started out with a chainsaw, I wasn’t going into the forestry business to make millions. I really had no high expectations of getting rich, so to speak, and I still don’t. I like what I do.” ■

25 YEARS AND COUNTING

COVID restrictions prevented Tigercat from recognizing the many team members who reached 25 years of service over the last couple of years. Low turnover has always been a hallmark of the company.

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Duane Clarke, Bill Barry, Dat La, Phu Nguyen, Sinh Ngoc Nguyen, Lap Le, Rick Heidenreich, Eric Savage, Long Ngo, Laurentiu Radulescu, Rob Whitelaw.



Jeff Janson, Samuel Buffong, Karen Van Koughnet, Wade Tizzard, José Hernandez, George Miller, Dave Hodder.



Jeff Parnell, Rollande Trepanier, James Leach.



Clockwise from top left:
Rob Selby, district manager based in British Columbia
James Farquhar, district manager based in Arkansas
Johnny Boyd, district manager based in Alabama

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